(055) What is claimed is:

(1) (Original) A manual electro-hydraulic selective depth control system for establishing a set position of a device above the ground as the device is moved across a surface, the selective depth control comprising:

a. a toggle input device for specifying a plurality of position settings;

b. a device position sensor for determining a measured device position; and

c. a hydraulic position control system having a programmable ground zero position and a programmable maximum depth position for the device, the hydraulic position control system maintains a set position corresponding to the measured device position within a specified position within a specified position window around a set position programmed relative to the ground-zero and maximum-depth position;

d. wherein the toggle input device comprises:

e. a working position that places the set position at a programmed position;

f. a shallow position that places the set position at a minimum deployed depth; and

g. a zero position that places the hydraulic position control system in a permanent de-energized mode.

(2) (Original) The manual electro-hydraulic selective depth control system according to claim 1 wherein the toggle input device further comprises a window size control input for specifying a size for the position window use by the hydraulic position control system.

(3) (Original) The manual electro-hydraulic selective depth control system according to claim 1, wherein the device position sensor is a potentiometer-based system.

(4) (Original) The manual electro-hydraulic selective depth control system according to claim 1, wherein the device position sensor is an ultra-sonic

transducer-based system.

(5) (Original) The manual electro-hydraulic selective depth control system according to
claim 1, wherein the toggle input device further comprises:
a. a set switch for setting the programmed position used when the toggle is in its current position to a new position of the device; and
b. an up/down rocker switch for adjusting the current position of the device.

(6) (Original) The manual electro-hydraulic selective depth control system according to claim 5, wherein a shallow position corresponds to a programmable position having a default position 1.5 inches deeper than the ground-zero position.

(7) (Original) The manual electro-hydraulic selective depth control system according to claim 5, wherein a shallow position is slaved to the working position in that a manual raise of the hydraulic position control system will move the set position from the programmed working position automatically to the shallow position.

(8) (Original) The manual electro-hydraulic depth control system according to claim 5, wherein the programmed working position corresponds to a programmable position having a default position 3.0 inches deeper than the ground-zero position.

(9) (Original) The manual electro-hydraulic selective depth control system according to claim 1, wherein the manual electro-hydraulic selective depth control system further comprises a device position display unit comprising a numeric LED display element.

(10) (Original) The manual electro-hydraulic selective depth control system according to claim 9, wherein the numeric LED display element show depth in inches with a decimal point to show 1/10 of an inch.

(11) (Original) The manual electro-hydraulic selective depth control system according to claim 1, wherein the hydraulic position control system further comprises a remote two-way, two position, normally open solenoid valve.

(12) (Canceled) A manual electro-hydraulic selective depth control system for establishing a set position of a device above the ground as the device is moved across a surface, the selective depth control system comprising:
a. a processor based unit; and
b. a remote control unit; and,
c. a three position toggle input device.

(13) (Original) A manual electro-hydraulic selective depth control system for establishing a set position of a device above the ground as the device is moved across a surface, the selective depth control system having a hydraulic position control system enabling the slaving of a shallow position and a working position:
a. an input device wherein the shallow position is slaved to the working position;
b. an input device wherein the shallow position is not slaved to the working position; and
c. a second input device wherein the working position and the shallow position are not slaved.

(14) (Original) The manual electro-hydraulic selective depth control system according to claim 13, wherein the shallow position is not slaved to the working position thereby having its own programmable depth, and in that a manual raise function of the hydraulic position control system will move the set position from

the shallow position to a full raise position.

(15) (Original) The manual electro-hydraulic selective depth control system according to claim **13**, wherein the shallow position is slaved to the working position in that a manual raise of the hydraulic position control system will move the set position from the working position automatically to the shallow position.

(16) (Original) The manual electro-hydraulic selective depth control system according to claim 13, wherein the working position and the shallow position are not slaved and a manual lower function of the hydraulic position control system will move the set position from the full raise position to the working position, by-passing the shallow position.

(17) (Canceled) A manual electro-hydraulic selective depth control system for establishing a set position of a device above the ground as the device is moved across a surface, the selective depth control system comprising:
a. an input device for specifying a plurality of position settings;
b. a device position sensor;
c. a processor control unit;
d. a console control unit;
e. a device position display unit; and
f. one or more hydraulic manifolds having a solenoid valve.

(18) (Original) A manual electro-hydraulic selective depth control system for establishing a set position of a device above the ground as the device is moved across a surface, the selective depth control system comprising hydraulic manifolds of different valve combinations; namely, from a solenoid activated valve, a counter-balance valve, a pressure reducing and relieving valve, and a check valve:

a. a hydraulic manifold wherein a solenoid activated valve is coupled to a counter-balance valve , and a pressure reducing and relieving valve, and a check valve;
b. another hydraulic manifold wherein a solenoid activated valve is coupled to a counter-balance valve, and a check valve; and
c. yet another hydraulic manifold wherein a solenoid activated valve is coupled to a counter-balance valve .

(19) (Original) The manual electro-hydraulic selective depth control system according to claim 18, wherein one hydraulic manifold incorporates a solenoid activated valve coupled to a counter-balance valve, a pressure reducing and relieving valve, and a check valve; wherein,
a. the solenoid activated valve is configured to stop the flow of oil to the hydraulic position control system
b. the counter-balance valve is configured to prevent air ingestion, to act as a holding valve , and to act as a relief valve;
c. the pressure reducing and relieving valve is configured to provide an adjustable and controlled pressure; and
d. the check valve is configured to operate in conjunction with the pressure reducing and relieving valve for holding the controlled pressure.

(20) (Original) The manual electro-hydraulic selective depth control system according to claim 18 wherein another hydraulic manifold incorporates a solenoid activated valve coupled to a counter-balance valve, and a check valve; wherein,

a. the solenoid actiovted valve is configured to stop the flow of oil to the hydraulic position control system

b. the counter-balance valve is configured to prevent air ingestion, to act as a holding valve, and to act as a relief valve; and

c. the check valve is configured to operate in conjunction with the counter-balance valve for holding the pressure.

(21) (Original) The manual electro-hydraulic selective depth control system

according to claim 18 wherein yet another hydraulic manifold incorporates a solenoid activated valve coupled to a counter-balance valve; wherein,

a. the solenois activated valve is configured to stop the flow of oil to the hyraulic position control system; and

b. the counter-balance valve is configured to prevent air ingestion, to act as a holding valve, and to act as a relief valve.

(22) (Cancel) The manual electro-hydraulic selective depth control system according to claim 16, wherein the hydraulic position control system comprise a parallel series cylinder set.

(23) (Canceled) The manual electro-hydraulic selective depth control system according to claim 16, wherein the hydraulic position control system comprise a series cylinder set.

(24) (Canceled) The manual electro-hydraulic selective depth control system according to claim 16, wherein the hydraulic position control system comprises a single cylinder.